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ABSTRACT

This is one of a series of reports which provide definitions of and descriptive data on the variables used in the Comparative Study of Phase IV of the Individually Guided Education (IEG) Evaluation Project. Phase IV investigated three curriculum programs specifically designed to be compatible with instructional programming for the individual student: (1) the Wisconsin Design for Reading Skills Development (WDRSD); (2) Developing Mathematical Processes (DMP); and (3) Prereading Skills (PRS). Information on instructional methods and pupil outcomes for grades 2 and 5 was collected from achievement monitoring and domain referenced tests, teacher logs, and classroom observations. This paper focuses on the Means of Instruction variables, and includes data from two sources: classroom observations (observed time) and teacher logs (allocated time). The Means of Instruction variables include: (1) group size (individual, small, and large); (2) instructional materials (paper/pencil, manipulations/games, printed materials, WDRSD, other text or curriculum series, teacher-made materials, and other materials); and (3) interactions (student to teacher and teacher to student). Tables present average numbers of hours and percentage of observed time for the Means of Instruction variables by grade for the three types of schools: IGE/WDRSD; (IGE/Non-WDRSD; and Non-IGE/WDRSD. (BS)

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Phase IV

Project Paper 80-8

MEANS OF INSTRUCTION VARIABLES

COMPARATIVE STUDY OF PHASE IV IGE EVALUATION PROJECT

by Anne G. Nerenz, Norman L. Webb

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November 1980

Wisconsin Research
and Development Center
for Individualized Schooling

Phase IV

Project Paper 80-8

MEANS OF INSTRUCTION VARIABLES

by

Anne G. Nerenz and Norman L. Webb

Report from the
IGE Evaluation Project

Thomas A. Romberg
Work Group Chairman

Wisconsin Research and Development Center
for Individualized Schooling
The University of Wisconsin-Madison
Madison, Wisconsin

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- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

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Abstract

This report is one in a series of papers which provide definitions of and descriptive information on the variables used in the Comparative Study of Phase IV of the IGE Evaluation Project. In particular, it focuses on the four Means of Instruction variables: Pacing, Grouping, Materials, and Interactions. Following a brief discussion of the development of the Phase IV variables, each Means of Instruction variable is defined, aggregation procedures are outlined, and primary data are reported. A more detailed discussion of the design of the study and the expected relationships among the variables is provided in Paper 80-2 (Webb, Romberg, Stewart, & Nerenz, 1980) and readers may find that report helpful in understanding the information presented here.

The IGE Evaluation Project has as a central objective the identification of features of IGE schooling which contribute to successful instruction, especially in reading skills and mathematics. Although the first four phases of this project focused on different aspects of IGE, they were designed to provide complementary data bases resulting in a comprehensive description of this form of schooling. With this goal in mind Phase IV was designed to supplement information collected in Phases I and III by providing detailed information on a small number of curricular and instructional variables. That is, whereas these phases investigated organizational, system, general means of instruction, and general achievement variables, the main purpose of Phase IV was to investigate the three R & D Center-produced curriculum programs whose instructional procedures and materials were specifically designed to be compatible with instructional programming for the individual student. These programs are the Wisconsin Design for Reading Skills Development (WDRSD) (Otto, 1977); Developing Mathematical Processes (DMP) (Romberg, 1977); and PreReading Skills (PRS) (Venezky and Pittelman, 1977).

Phase IV was divided into two parts--the Descriptive Study and the Comparative Study--and information on the design and procedures used during each portion may be found in Project Papers 79-42 and 80-2 (Webb and Romberg, 1979; Webb, Romberg, Stewart, & Nerenz,

1980). Briefly, each part was designed to provide detailed information on two variables--means of instruction and pupil outcomes--using achievement monitoring and domain referenced tests, teacher logs, and classroom observations. In addition, a smaller amount of information on background, organizational, and program variables was obtained using principal, unit leader, and teacher interviews.

This report focuses on one variable--Means of Instruction--and includes data from two sources. Information on the amount of time allocated to several types of materials and groupings was recorded on the teacher logs. In contrast, the classroom observations provide information on the amount of available time the pupils spent in groups of different sizes, using different materials, and interacting with different people.

Following a discussion of the relationships between the Phase I and Phase IV variables, a definition of each variable, a description of the scaling procedures, and a summary of the primary data are included.

A Comparison of the Phase I and Phase IV Models

A structural model for predicting student achievement was developed for Phase I and is shown in Figure 1 (Price, Janicki, Howard, Stewart, Buchanan, & Romberg, 1978). This model was developed from the three premises on which IGE is based. They are:

1. Certain organizational features make it more likely that certain desirable instructional practices will occur. These organizational features also make it more likely that the staff will be satisfied with their jobs.

2. The use of certain curriculum materials and associated systems of information collection and record keeping makes it more likely that certain desirable instructional practices will occur.

3. Those instructional practices which are deemed desirable in IGE make high student achievement more likely. They also make it more likely that desirable changes in other student characteristics, such as self-perception and locus of control, will occur.

Data on the first premise were organized into six variables: Interorganizational Relations (IOR), Procedures Fostering Coordination and Improvement of the School Program (GOS), Intraorganizational Structure (IOS), General Staff Background (GSB), Belief in Individual Differences (INDIV), and General Implementation of the Instructional Programming Model (IPM). These describe in detail the organizational structure and staff background in the school. Four variables were developed in response to the second premise. These are: Utilization of Curriculum Resources (UCR), Information Acquisition (IA), Individualization of Instructional Decisions (IID), and Management of Grouping and of Instructional Continuity (IC). A single variable--Student Achievement--includes the pupil outcomes discussed in the third premise. With the exception of the achievement measures, data on all of the variables in the Phase I model were collected using teacher, general staff, and principal questionnaires.

In contrast, Phase IV was designed to provide more detail on the last two premises posed in Phase I, with specific attention paid to means of instruction and curriculum related student achievement, while providing sufficient background information that each school in the smaller Phase IV sample might be related on several significant dimensions to schools in the larger Phase I sample as

a whole. Thus, some information was collected on four of the six schoolwide variables used in Phase I-- General Implementation of the Instructional Programming Model (IPM), Intraorganizational Structure (IOS), Procedures Fostering Coordination and Improvement of the School Program (GOS), and Interorganizational Relations (IOR)-- as well as one of the four curricular variables, Utilization of Curriculum Resources (UCR). For the second curricular variable for which data were obtained--Management of Grouping and of Instructional Continuity--considerably more detailed information was obtained in Phase IV than in Phase I, as is also the case for the Pupil Achievement Variables. A model depicting the Phase IV variables and the anticipated relationships is shown in Figure 2.

Definition and Aggregation Procedures

Definition

Means of Instruction is considered to be the teaching procedures and materials used to implement a curriculum program and convey subject matter to the learner.

Aggregation Procedures

Pacing. In that students' activities could be coded into one of only two possible pacing categories (self-paced, other-paced), data on this variable were not aggregated further. Pacing correlated highly with Grouping so no separate data for Pacing have been tabulated.

Grouping. On the teacher logs, one of three group sizes was recorded in addition to the amount of time allocated to instruction

on a particular content. Three group sizes were coded: individual, small group (8 or fewer), and large group. On the observation forms, data on student groupings were coded into one of four categories: individual, pair, small group (fewer than 8), and large group. However, because pair and small group activities were rarely observed, these two categories were combined, resulting in the same three grouping categories that were used on the teacher logs.

Materials. Information on the source and type of materials which were used during instruction was recorded on the teacher logs and the observations. On the teacher logs, four types of materials were considered: DMP or WDRSD, text or other curriculum series, teacher-made, and other. In that some information was recorded in all of the categories, they were not aggregated. Seven categories of materials were considered on the observation forms: paper/pencil, manipulative, game, audiovisual, printed material, other, and can't tell. Because very little time was observed in the audiovisual, other, and can't tell categories, these were aggregated into a single subvariable. Manipulatives and games were also merged to form a single subvariable.

Interactions. The observation categories allowed for recording interactions between the target student and the teacher, other adults, and other students. These categories were combined into two: student to teacher (or other adult) and teacher (or other adult) to student.

Results

In the tables that follow, observed time (from classroom observations) and allocated time (from teacher logs) are reported by grade for the Means of Instruction variables. Data for each of the seven observation periods (A-G) are given separately, both by number of hours and by percent of the total hours included in that observation. Means for each type of school have been calculated for comparison purposes.

Table 1

Average Number of Hours and Percentage of Observed Time for

Three Grouping Categories by Period for Reading Skills

Grade 2

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Individual								
IGE/WDRSD								
466	-	1.35, 24	2.27, 18	1.12, 13	2.35, 28	.98, 05	.42, 07	8.69
451	.95, 06	1.39, 26	1.53, 61	.23, 10	2.99, 37	2.18, 30	3.00, 43	12.27
476	2.44, 34	.69, 10	1.90, 29	2.99, 45	1.94, 30	0 0	.89, 13	10.85
507	2.52, 17	5.32, 42	4.24, 29	6.09, 34	6.59, 35	8.41, 52	6.96, 63	40.13
MEAN	19	26	34	25	33	22	32	
IGE/Non-WDRSD								
372	14.42, 54	21.72, 51	28.76, 53	18.45, 49	12.35, 53	17.17, 61	27.19, 59	140.06
410	8.80, 56	2.90, 48	12.80, 71	11.36, 45	4.75, 39	12.26, 69	11.86, 50	64.73
493	3.96, 33	6.94, 42	4.92, 29	3.89, 36	8.86, 39	3.52, 39	6.73, 40	38.82
MEAN	48	47	51	43	43	57	50	
Non-IGE/WDRSD								
900	5.03, 41	0 0	-	2.17, 37	0 0	.36, 09	1.67, 29	9.23
902	1.21, 32	.37, 12	3.05, 37	2.09, 40	1.80, 30	1.89, 24	4.51, 57	14.92
901	5.05, 43	5.83, 54	10.59, 42	11.34, 58	6.63, 51	4.11, 44	4.97, 32	48.52
903	4.10, 54	1.08, 22	2.67, 27	-	3.11, 43	1.74, 24	1.97, 20	14.67
MEAN	42	22	35	45	31	25	34	

Table 1 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Small Group								
IGE/WDRSD								
466	-	0.17, 03	0 0	.05, 0+	.71, 08	.36, 02	.69, 12	1.98
451	4.88, 33	0 0	0 0	0 0	0 0	0 0	.21, 03	5.09
476	-	-	-	-	-	-	-	
507	.23, 02	0 0	.07, 0+	0 0	0 0	0 0	0 0	.30
MEAN	18	01	0+	0+	03	01	05	
IGE/Non-WDRSD								
372	4.26, 16	3.67, 09	6.75, 12	5.87, 16	3.52, 15	3.68, 13	4.61, 10	32.36
410	4.63, 30	3.10, 52	4.52, 25	13.48, 53	6.60, 54	4.84, 27	11.00, 46	48.17
493	0 [illegible]6	0 [illegible]0	0 0	.06 0+	.19, 01	.12, 01	.12, 01	.49
MEAN	15	20	13	23	23	14	19	
Non-IGE/WDRSD								
900	0 0	1.35, 18	-	.28, 05	1.69, 22	0 0	0 0	3.32
902	0 0	0 0	.40, 05	0 0	0 0	0 0	0 0	.40
901	1.10, 09	1.63, 15	5.45, 21	0.28, 01	1.69, 13	2.06, 22	2.12, 14	14.33
903	2.96, 39	0 0	.06, 01	-	.05, 01	0 0	.61, 06	3.68
MEAN	12	08	09	02	09	06	05	

Table 1 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Large Group								
IGE/WDRSD								
466	-	2.88, 51	7.60, 61	4.97, 57	3.88, 43	11.78, 66	3.83, 67	34.94
451	6.87, 46	2.54, 48	.97, 39	1.42, 59	3.42, 40	3.70, 51	3.56, 51	22.30
476	3.87, 54	5.88, 84	4.17, 64	2.81, 42	4.21, 65	4.19, 97	5.68, 82	30.81
507	11.56, 77	6.58, 53	9.06, 62	9.65, 55	11.40, 61	7.11, 44	2.58, 23	57.94
MEAN	59	59	56	53	52	65	56	
IGE/Non-WDRSD								
372	5.80, 22	6.87, 16	11.00, 20	7.64, 20	5.00, 21	3.27, 12	7.37, 16	46.95
410	2.16, 14	0 0	.18, 01	0 0	0 0	0 0	0 0	2.34
493	5.27, 44	7.05, 42	5.17, 30	4.43, 41	9.56, 42	4.17, 46	5.75, 34	41.40
MEAN	26	19	17	21	21	19	17	
Non-IGE/WDRSD								
900	5.74, 47	3.33, 44	-	1.02, 17	4.31, 57	1.39, 36	3.50, 58	19.29
902	1.31, 35	2.51, 79	.85, 10	2.58, 50	2.57, 43	3.98, 50	1.14, 14	14.94
901	3.83, 32	.74, 07	5.63, 22	5.43, 28	2.99, 23	2.34, 25	4.50, 29	25.46
903	.32, 04	3.71, 77	5.27, 53	-	2.46, 34	3.90, 53	5.91, 61	21.57
MEAN	30	52	29	32	39	41	41	

Table 2

Average Number of Hours and Percentage of Allocated Time for

Three Grouping Categories by Period for Reading Skills

Grade 2

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Individual								
IGE/WDRSD								
466	7.50, 21	6.16, 21	6.41, 23	15.75, 30	11.24, 26	3.66, 10	19.09, 38	69.81
451	2.50, 11	0 0	0 0	0 0	0 0	0 0	0 0	2.50
476	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
507	0 0	0 0	21.83, 36	17.92, 50	26.76, 64	26.25, 54	59.19, 76	151.95
MEAN	08	07	15	20	23	16	28	
IGE/Non-WDRSD								
372	71.66, 72	150.14, 76	160.55,100	141.67, 68	164.00, 72	115.11, 64	204.59, 70	1007.72
410	10.62, 34	46.50, 74	50.80,100	48.50,100	35.00,100	20.17, 32	18.00, 21	229.59
493	15.75, 37	30.67, 40	48.21, 46	44.90, 45	44.46, 46	43.34, 45	35.09, 31	262.42
MEAN	48	63	86	78	73	60	41	
Non-IGE/WDRSD								
900	0 0	0 0	0 0	4.00, 21	5.50, 22	18.67, 55	8.00, 28	36.17
902	3.00, 07	0 0	12.00, 30	5.50, 12	0 0	8.00, 12	20.50, 17	49.00
901	9.00, 12	36.76, 34	54.08, 39	64.26, 44	52.92, 38	52.57, 52	67.00, 30	336.59
903	14.41, 30	3.50, 17	7.07, 33	-	8.33, 41	8.76, 34	5.67, 27	47.74
MEAN	07	13	26	26	25	38	26	

Table 2 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Small Group								
IGE/WDRSD								
456	1.25, 04	5.08, 17	.83, 03	1.58, 03	2.67, 06	1.33, 03	1.00, 02	13.74
451	3.50, 15	0 0	0 0	0 0	0 0	0 0	0 0	3.50
476	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
507	0 0	0 0	0 0	1.16, 03	0 0	0 0	.90, 01	2.06
MEAN	05	04	01	02	02	01	01	
IGE/Non-WDRSD								
372	4.84, 05	5.99, 03	9.48, 04	22.42, 11	31.38, 14	31.33, 17	38.26, 13	143.71
410	4.92, 16	6.50, 10	0 0	8.50, 15	16.50, 31	33.83, 54	39.00, 63	119.25
493	18.42, 44	34.78, 45	42.22, 40	33.64, 34	38.89, 41	42.06, 43	38.54, 34	249.05
MEAN	22	19	15	20	29	38	37	
Non-IGE/WDRSD								
900	2.00, 09	1.00, 04	4.66, 18	0 0	0 0	0 0	2.33, 08	9.99
902	0 0	0 0	3.00, 07	4.50, 10	0 0	0 0	0 0	7.50
901	10.42, 14	8.84, 08	6.67, 05	14.00, 10	14.33, 10	5.34, 05	10.16, 05	69.76
903	18.27, 38	3.34, 16	1.08, 05	--	.58, 03	.25, 01	3.76, 18	27.28
MEAN	15	07	09	07	03	02	08	

Table 2 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Large Group								
IGE/WDRSD								
466	25.58, 73	17.26, 58	16.75, 58	34.16, 65	38.09, 66	31.00, 81	29.16, 58	182.00
451	13.90, 60	17.40, 98	24.00, 97	0 0	0 0	9.00, 33	6.00, 22	70.30
476	18.00, 95	38.00, 95	36.00, 34	40.00, 95	34.00, 94	30.00, 31	40.00, 35	236.00
507	32.49, 98	44,92, 99	38.59, 63	16.99, 47	15.17, 36	21.51, 44	17.41, 22	187.08
MEAN	82	65	63	52	49	47	34	
IGE/Non-WDRSD								
372	9.83, 10	23.66, 13	29.65, 13	37.50, 18	28.68, 13	20.51, 11	46.55, 16	196.38
410	7.67, 25	2.50, 04	8.00, 12	0 0	0 0	9.00, 14	12.00, 14	39.17
493	1.33, 03	1.38, 02	6.59, 06	9.50, 09	6.24, 07	7.00, 07	34.26, 30	66.30
MEAN	13	06	10	09	07	11	20	
Non-IGE/WDRSD								
900	19.66, 87	23.67, 90	18.32, 71	12.33, 64	17.66, 72	13.99, 41	16.00, 56	121.63
902	39.00, 92	36.50, 98	10.50, 26	33.00, 23	33.00, 99	58.00, 86	100.50, 83	299.50
901	52.84, 72	59.25. 55	77.83, 56	68.34, 47	55.83, 40	39.17, 39	140.00 63	493.26
903	13.75, 29	11.92, 58	11.69, 55	-	11.08, 55	14.32, 55	10.75, 52	73.51
MEAN	70	75	52	45	66	55	64	

Table 3

Average Number of Hours and Percentage of Observed Time for

Three Materials Categories by Period for Reading Skills

Grade 2

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Paper/Pencil								
IGE/WDRSD								
466	-	3.22, 58	5.91, 47	3.37, 39	5.63, 62	4.74, 27	1.19, 21	24.06
451	12.60, 85	3.72, 70	2.43, 92	1.64, 68	4.49, 56	3.14, 44	4.70, 67	32.72
476	4.80, 68	1.60, 23	5.43, 84	3.97, 59	2.61, 40	1.22, 28	2.72, 40	22.35
507	7.73, 52	9.41, 75	10.96, 75	8.32, 47	9.84, 53	8.23, 51	8.21, 75	62.70
MEAN	68	56	76	54	53	38	50	
IGE/Non-WDRSD								
372	15.77, 60	18.52, 43	29.80, 54	19.51, 52	13.35, 57	18.29, 65	25.73, 56	140.97
410	9.86, 63	4.70, 78	11.72, 66	12.77, 60	9.15, 74	14.29, 81	15.89, 67	78.38
493	5.17, 43	8.42, 51	5.90, 35	4.13, 39	9.48, 42	5.18, 58	7.03, 42	45.31
MEAN	55	57	52	47	58	68	55	
Non-IGE/WDRSD								
900	8.34, 68	1.05, 14	-	2.33, 39	1.17, 15	.36, 09	3.22, 54	16.47
902	1.69, 45	2.22, 70	2.56, 31	3.05, 59	.98, 16	1.83, 23	4.68, 59	17.01
901	7.27, 62	5.57, 52	13.13, 52	12.58, 65	10.50, 81	5.38, 57	7.59, 49	62.02
903	4.96, 65	4.06, 85	7.88, 80	-	4.83, 66	3.59, 49	6.39, 66	31.71
MEAN	60	55	54	54	45	35	57	

Table 3 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
	Manipulatives / Games							
IGE/WDRSD								
466	-	0 0	1.29, 10	0 0	0 0	0 0	1.40, 24	2.69
451	0 0	0 0	0 0	0 0	1.21, 15	1.07, 15	0 0	2.28
476	0 0	.28, 04	0 0	0 0	0 0	.12, 03	.07, 01	.47
507	.28, 02	.07, 0+	0.21, 01	0 0	.55, 03	0 0	0 0	1.11
MEAN	01	01	03	00	04	04	06	
IGE/Non-WDRSD								
372	1.99, 08	0 0	.75, 01	2.40, 06	0 0	0 0	.48, 01	5.62
410	0 0	0 0	0 0	.47, 02	0 0	0 0	0 0	.47
493	-	-	-	-	-	-	-	
MEAN	04	00	0+	04	00	00	0+	
Non-IGE/WDRSD								
900	0 0	0 0	-	.44, 07	2.54, 34	0 0	0 0	2.98
902	.12, 03	.65, 20	1.72, 21	1.04, 20	1.50, 25	1.82, 23	.94, 12	7.79
901	.96, 08	.24, 02	3.37, 13	0 0	0 0	0 0	.40, 02	4.97
903	1.72, 23	0 0	0 0	-	0 0	0 0	1.59, 16	3.31
MEAN	08	06	11	09	15	06	08	

Table 3 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Printed Materials								
IGE/WDRSD								
466	-	0 0	0 0	.24, 03	1.55, 17	0 0	0 0	1.79
451	-	-	-	-	-	-	-	
476	0 0	.83, 12	0 0	.17, 02	.06, 01	0 0	0 0	1.06
507	.98, 06	0 0	.07, 0+	.94, 05	1.33, 07	3.57, 22	.07, 01	6.96
MEAN	03	04	0+	03	08	07	0+	
IGE/Non-WDRSD								
372	5.87, 22	13.80, 32	17.84, 33	9.74, 26	7.14, 30	8.78, 31	14.65, 32	77.82
410	9.86, 63	3.10, 52	15.14, 85	12.89, 51	7.95, 65	10.97, 62	8.89, 37	68.80
493	2.97, 24	6.11, 37	3.37, 20	3.19, 30	4.21, 18	7.92, 32	7.14, 43	29.91
MEAN	37	40	46	36	38	42	37	
Non-IGE/WDRSD								
900	0 0	1.41, 10	-	0 0	.06, 01	0 0	0 0	1.47
902	.46, 12	.03, 01	0 0	.42, 08	0 0	0 0	0 0	.91
901	2.74, 23	2.47, 23	3.24, 13	5.17, 27	1.43, 11	1.02, 11	4.28, 28	20.35
903	.09, 01	0 0	.06, 01	-	0 0	0 0	0 0	.15
MEAN	09	11	04	12	03	03	07	

Table 4

Average Number of Hours and Percentage of Allocated Time for

Four Materials Categories by Period for Reading Skills

Grade 2

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
			WDRSD					
IGE/WDRSD								
466	7.00, 20	7.25, 25	7.75, 28	18.99, 36	14.50, 34	21.33, 56	20.64, 41	97.46
451	2.50, 11	14.40, 81	15.00, 61	9.00, 98	3.00, 11	18.00, 65	3.00, 11	64.90
476	6.00, 32	6.00, 15	5.00, 13	8.00, 19	4.00, 11	8.00, 25	8.00, 19	45.00
507	11.24, 34	25.59, 56	49.16, 80	17.76, 49	17.09, 41	10.32, 21	32.34, 42	163.50
MEAN	25	32	46	50	24	42	28	
IGE/Non-WDRSD								
372	0 0	1.00, 01	0 0	0 0	0 0	0 0	2.00, 01	3.00
410	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
493	0 0	0 0	.50, 01	0 0	0 0	0 0	0 0	.50
MEAN	0	0+	0+	0	0	0	0+	
Non-IGE/WDRSD								
900	15.99, 71	8.34, 32	11.99, 47	9.00, 47	14.33, 58	24.00, 71	8.00, 28	91.65
902	30.00, 70	22.50, 60	27.50, 68	32.50, 73	17.00, 76	51.50, 77	56.00, 46	237.00
901	40.17, 55	24.67, 23	33.66, 24	42.17, 29	34.50, 25	30.67, 31	112.82, 51	318.66
903	22.67, 47	9.50, 46	4.42, 21	-	2.92, 14	15.75, 60	6.91, 33	62.17
MEAN	61	40	40	50	43	60	40	

Table 4 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Other Text or Curriculum Series								
IGE/WDRSD								
466	0 0	0 0	1.50, 05	.50, 01	1.00, 02	1.42, 04	.42, 01	4.84
451	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
476	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
507	8.75, 26	2.00, 04	18.17, 30	4.92, 14	0 0	.83, 02	15.16, 19	49.83
MEAN	06	01	09	07	0+	02	05	
IGE/Non-WDRSD								
372	60.34, 60	119.07, 61	149.27, 67	154.73, 75	198.15, 87	141.97, 79	225.85, 77	1049.38
410	5.00, 16	18.50, 30	41.50, 63	38.50, 68	26.50, 50	37.00, 59	35.00, 40	202.00
493	33.12, 77	69.93, 91	89.03, 85	81.45, 81	87.96, 92	86.01, 88	80.24, 70	527.74
MEAN	51	61	72	75	76	75	52	
Non-IGE/WDRSD								
900	0 0	1.00, 04	2.00, 08	0 0	0 0	0 0	1.33, 05	4.33
902	1.50, 04	0 0	2.50, 06	0 0	0 0	0 0	12.00, 10	16.00
901	3.25, 04	19.92, 18	26.93, 19	45.58, 31	36.52, 26	29.83, 30	51.17, 23	212.83
903	5.50, 11	0 0	0 0	-	2.33, 12	1.67, 06	.83, 04	10.33
MEAN	05	06	08	10	10	09	10	

Table 4 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Teacher-Made Materials								
IGE/WDRSD								
466	10.33, 29	8.00, 27	6.75, 24	10.41, 20	8.24, 19	7.42, 19	12.43, 25	63.58
451	3.90, 17	3.00, 17	10.50, 43	-	24.00, 89	9.00, 33	24.00, 87	74.40
476	12.00, 63	32.00, 80	24.00, 63	24.00, 57	4.00, 11	8.00, 25	12.00, 29	116.00
507	14.17, 43	17.34, 38	5.26, 09	.08, 0+	3.17, 08	5.42, 11	12.01, 15	57.45
MEAN	38	40	35	26	32	22	39	
IGE/Non-WDRSD								
372	5.84, 06	3.25, 02	1.83, 01	1.25, 01	3.50, 02	6.06, 03	3.00, 01	24.73
410	0 0	0 0	0	0 0	0 0	13.00, 21	22.00, 25	35.00
493	2.16, 05	1.41, 02	2.32, 02	0 0	.41, 0+	0 0	3.08, 03	9.38
MEAN	04	01	01	0+	01	08	10	
Non-IGE/WDRSD								
900	6.67, 29	20.67, 79	2.33, 09	10.33, 54	4.33, 18	4.99, 15	9.67, 34	58.99
902	7.50, 18	22.50, 60	22.50, 55	1.50, 03	9.50, 43	47.00, 01	52.50, 43	163.00
901	21.17, 44	26.33, 24	35.17, 25	6.00, 04	10.75, 08	21.91, 22	17.50, 08	138.83
903	14.35, 30	7.76, 38	5.42, 26	-	6.58, 33	5.99, 23	.92, 04	41.02
MEAN	30	50	29	20	26	15	22	

Table 4 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Other Materials								
IGE/WDRSD								
466	17.00, 48	12.25, 41	8.00, 29	21.17, 40	19.25, 45	8.34, 22	15.68, 31	101.69
451	5.00, 22	0 0	0 0	0 0	9.00, 33	3.00, 11	0 0	17.00
476	0 0	0 0	7.00, 18	8.00, 19	26.00, 72	14.00, 43	20.00, 48	75.00
507	2.08, 06	6.67, 15	3.00, 05	19.16, 53	26.01, 62	31.82, 65	19.66, 25	108,40
MEAN	19	14	13	28	53	35	26	
IGE/Non-WDRSD								
372	23.89, 24	72.54, 37	45.26, 20	43.39, 21	23.04, 10	12.66, 07	56.75, 19	277.53
410	2.08, 07	0 0	0 0	0 0	3.00, 06	9.00, 15	12.00, 14	26.08
493	9.58, 22	8.78, 11	14.57, 14	21.75, 22	7.66, 08	13.33, 14	27.92, 24	103.59
MEAN	15	16	11	14	08	09	19	
Non-IGE/WDRSD								
900	1.66, 07	8.67, 33	11.67, 45	6.67, 35	12.00, 49	5.67, 17	11.00, 39	57.34
902	3.00, 07	1.00, 03	2.50, 06	11.00, 25	12.00, 09	3.00, 03	8.00, 07	40.50
901	5.67, 08	30.59, 28	41.26, 30	46.34, 32	55.66, 40	17.67, 18	38.33, 17	235.52
903	0 0	.50, 02	7.92, 37	-	7.00, 35	1.50, 06	2.92, 14	19.84
MEAN	06	16	30	31	33	11	19	

Table 5

Average Number of Hours and Percentage of Observed Time for

Two Interactions Categories by Period for Reading Skills

Grade 2

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Student to Teacher								
IGE/WDRSD								
466	-	.53, 09	.60, 05	.56, 06	.49, 05	.85, 05	.56, 10	3.59
451	2.34, 10	.73, 14	.28, 11	0 0	.95, 12	.55, 08	.96, 14	5.81
476	.50, 07	.86, 12	.27, 04	1.03, 15	.36, 06	.25, 06	1.02, 15	4.29
507	1.59, 11	.84, 07	1.46, 10	1.70, 10	2.13, 11	2.21, 14	.46, 04	10.39
MEAN	11	10	08	08	08	08	10	
IGE/Non-WDRSD								
372	3.39, 13	4.04, 09	7.66, 14	3.24, 09	2.60, 11	3.42, 12	4.01, 09	28.36
410	1.68, 11	1.00, 17	2.64, 15	6.61, 26	2.25, 18	2.80, 16	5.90, 25	22.88
493	.79, 06	2.46, 15	1.72, 10	1.17, 11	3.71, 16	.85, 09	1.55, 09	12.25
MEAN	10	14	13	15	15	12	14	
Non-IGE/WDRSD								
900	.27, 02	.97, 13	-	.37, 06	.72, 09	.17, 04	1.11, 18	3.61
902	.52, 14	.48, 15	1.16, 14	.95, 18	.72, 12	.69, 09	.94, 12	5.46
901	1.14, 10	.40, 04	2.59, 10	1.29, 07	.20, 02	1.07, 11	.94, 06	7.63
903	1.01, 13	.57, 12	.77, 08	-	.56, 08	.92, 13	1.02, 10	4.85
MEAN	10	11	11	10	08	09	12	

Table 5 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Teacher to Student								
IGE/WDRSD								
466	-	2.59, 46	1.22, 10	1.63, 19	1.37, 15	5.67, 32	1.70, 30	14.18
451	5.22, 35	1.21, 23	.42, 17	.61, 25	1.30, 16	1.53, 21	1.95, 28	12.24
476	2.76, 39	3.65, 52	2.79, 43	1.74, 26	2.28, 35	2.55, 59	3.06, 44	18.83
507	4.71, 31	3.54, 28	4.26, 29	5.89, 33	5.53, 30	4.29, 27	2.08, 19	30.30
MEAN	35	38	25	26	24	35	30	
IGE/Non-WDRSD								
372	4.27, 16	5.38, 13	5.99, 11	4.43, 12	2.15, 09	3.43, 12	5.28, 12	30.93
410	2.75, 18	.90, 15	.97, 05	4.27, 17	2.60, 21	1.89, 11	3.80, 16	17.18
493	1.93, 16	2.65, 16	1.58, 09	1.62, 15	3.90, 17	2.20, 24	2.13, 13	16.01
MEAN	17	15	09	15	16	16	13	
Non-IGE/WDRSD								
900	7.11, 58	3.06, 40	-	.49, 08	2.04, 27	.45, 12	1.50, 25	14.65
902	.76, 20	1.34, 42	.84, 10	1.84, 35	1.84, 31	2.26, 28	1.60, 20	10.48
901	3.96, 34	1.80, 17	2.46, 10	1.94, 10	.79, 06	.72, 08	1.48, 10	13.15
903	1.32, 17	1.81, 38	2.68, 27	-	1.27, 17	2.72, 37	3.14, 32	12.94
MEAN	32	34	16	18	20	21	22	

Table 6

Average Number of Hours and Percentage of Observed Time for

Three Grouping Categories by Period for Reading Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Individual								
IGE/WDRSD								
466	-	0.68, 13	3.30, 34	1.63, 27	-	3.76, 31	2.43, 68	11.80
451	5.64, 49	4.40, 39	-	2.17, 68	6.30, 57	5.11, 46	2.66, 25	26.28
476	5.22, 46	1.29, 13	3.57, 30	5.23, 54	6.43, 77	0.07, 01	4.68, 40	26.49
507	7.55, 50	3.58, 55	10.73, 73	4.82, 45	6.54, 94	4.99, 72	3.52, 90	41.73
MEAN	52	30	46	49	76	38	56	
IGE/Non-WDRSD								
372	16.87, 73	15.45, 72	25.06, 75	18.82, 76	17.41, 75	12.70, 77	14.28, 60	120.59
410	6.05, 58	4.93, 43	8.86, 66	6.54, 73	4.17, 57	8.10, 69	16.23, 54	54.88
493	2.75, 30	3.57, 22	3.13, 24	3.45, 42	4.95, 34	5.99, 55	4.53, 45	28.37
MEAN	54	46	55	64	55	67	53	
Non-IGE/WDRSD								
900	5.21, 62	2.84, 29	-	2.20, 25	1.13, 10	3.60, 67	5.21, 59	20.19
902	2.44, 51	0.86,22	1.82, 21	1.98, 34	1.28, 23	1.86, 22	5.45, 61	15.69
901	7.07, 53	4.05, 39	8.41, 41	3.73, 41	10.84, 56	1.75, 22	5.71, 52	41.56
903	3.71, 72	2.79, 40	1.86, 26	-	4.66, 49	1.74, 23	3.67, 37	18.43
MEAN	60	33	29	33	34	34	52	

Table 6 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Small Group								
IGE/WDRSD								
466	-	0.05, 01	0.51, 05	0 0	-	1.53, 13	0.07, 01	2.16
451	0 0	0 0	-	0 0	1.11, 10	0 0	0 0	1.11
476	0 0	0.40, 04	0.26, 02	0.64, 07	1.08, 13	0.73, 11	0 0	3.11
507	0 0	0.28, 04	0.16, 01	1.59, 15	0 0	0 0	0 0	2.03
MEAN	0	02	03	06	08	06	0+	
IGE/Non-WDRSD								
372	1.20, 05	0.67, 03	1.33, 04	0.80, 03	0.34, 01	0.21, 01	0.18, 01	4.73
410	4.43, 42	6.43, 56	3.99, 30	0.17, 02	1.80, 25	2.88, 24	12.35, 41	32.05
493	0 0	0 0	0 0	0 0	0.11, 01	0.43, 04	0 0	0.54
MEAN	16	20	11	02	09	01	14	
Non-IGE/WDRSD								
900	0.41, 05	0 0	-	0 0	0.09, 01	0 0	0.06, 01	0.56
902	0 0	1.58, 40	0 0	0 0	0 0	0 0	0 0	1.58
901	1.60, 12	1.38, 13	0 0	0.34, 04	0 0	0.97, 12	1.50, 14	5.79
903	0.11, 02	2.41, 34	0.11, 26	-	1.69, 18	0.47, 06	0 0	4.79
MEAN	05	22	09	01	06	04	04	

Table 6 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Large Group								
IGE/WDRSD								
466	-	3.44, 65	1.82, 19	2.03, 34	-	2.73, 23	4.99, 45	15.01
451	3.10, 32	5.21, 47	-	0.14, 04	3.05, 28	5.30, 48	5.17, 48	21.97
476	5.34, 47	4.00, 41	0.81, 07	3.14, 32	0.34, 04	5.79, 88	5.89, 50	25.31
507	6.03, 40	0.49, 08	2.19, 15	1.27, 12	0.07, 01	0.37, 05	0.21, 05	10.63
MEAN	40	40	14	20	11	41	37	
IGE/Non-WDRSD								
372	1.93, 08	1.58, 07	1.92, 06	1.39, 06	3.00, 13	1.14, 07	1.52, 06	12.48
410	0 0	0 0	0 0	1.77, 20	1.18, 16	0 0	0 0	2.95
493	4.78, 52	6.16, 37	6.30, 48	3.43, 41	8.10, 56	3.79, 35	1.39, 14	33.95
MEAN	20	15	96	22	28	14	07	
Non-IGE/WDRSD								
900	1.73, 21	4.11, 42	-	5.74, 64	6.10, 54	1.36, 25	1.98, 22	21.02
902	1.03, 22	0.88, 23	3.10, 36	1.59, 27	1.78, 32	5.85, 68	1.22, 14	15.45
901	3.19, 24	2.66, 25	8.01, 39	2.69, 29	6.96, 36	2.92, 37	1.46, 13	27.89
903	1.22, 22	1.85, 26	4.53, 63	-	1.25, 13	3.96, 52	5.20, 53	17.91
MEAN	22	29	46	40	34	46	26	

Table 7

Average Number of Hours and Percentage of Allocated Time for

Three Grouping Categories by Period for Reading Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Individual								
IGE/WDRSD								
466	6.00, 28	5.50, 34	5.09, 40	7.82, 51	4.75, 41	6.17, 37	6.58, 35	41.91
451	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
476	0 0	0 0	5.00, 09	1.25, 03	20.75, 44	7.50, 21	14.25, 35	48.75
507	2.08, 11	11.25, 31	14.67, 32	15.42, 35	2.08, 07	22.92, 56	30.57, 65	98.99
MEAN	10	16	20	22	23	23	29	
IGE/Non-WDRSD								
372	45.77, 56	71.99, 60	82.48, 62	98.75, 74	104.56, 75	73.93, 65	112.02, 68	589.50
410	28.00, 40	40.58, 47	64.74, 50	65.53, 65	74.76, 72	64.40, 66	83.08, 63	421.09
493	10.33, 16	25.16, 24	42.17, 31	22.67, 20	26.34, 23	11.33, 11	32.00, 21	170.00
MEAN	37	44	48	53	57	47	51	
Non-IGE/WDRSD								
900	2.84, 33	7.41, 43	12.00, 27	4.00, 13	5.67, 56	4.00, 12	7.50, 23	43.42
902	8.50, 18	1.50, 04	2.00, 03	15.50, 21	0 0	7.50, 09	.83, 01	35.83
901	5.91, 08	10.33, 12	16.66, 14	19.67, 19	22.65, 19	24.97, 32	43.85, 35	144.04
903	5.58, 41	4.67, 26	11.34, 35	-	7.58, 41	12.83, 52	6.75, 34	48.35
MEAN	25	21	20	18	29	26	23	

Table 7(continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Small Group								
IGE/WDRSD								
466	3.00, 14	3.50, 22	.50, 04	0 0	1.50, 13	4.92, 30	2.17, 11	15.59
451	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
476	3.00, 12	2.25, 06	0 0	1.50, 03	6.75, 14	4.00, 11	0 0	17.50
507	.42, 02	2.58, 07	1.33, 03	8.42, 19	6.67, 21	6.67, 16	0 0	26.09
MEAN	07	09	02	06	10	14	03	
IGE/Non-WDRSD								
372	10.50, 13	11.34, 09	9.67, 07	12.07, 09	14.58, 10	11.00, 10	15.25, 09	84.41
410	15.20, 22	25.57, 30	23.24, 18	5.00, 05	14.75, 14	6.42, 07	4.00, 03	94.18
493	2.01, 03	3.67, 03	2.67, 02	4.00, 04	2.00, 02	2.00, 02	6.00, 04	22.35
MEAN	13	14	05	06	09	06	05	
Non-IGE/WDRSD								
900	0 0	0 0	.67, 02	0 0	0 0	3.84, 11	0 0	4.51
902	2.00, 04	.50, 01	.50, 01	3.50, 05	0 0	.75, 01	6.00, 07	13.25
901	23.09, 31	2.33, 03	12.66, 10	26.49, 25	6.88, 06	13.99, 18	23.75, 19	108.99
903	1.68, 12	3.75, 21	1.83, 06	-	3.91, 21	2.00, 03	2.50, 13	15.67
MEAN	09	06	05	10	07	10	10	

Table 7 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Large Group								
IGE/WDRSD								
466	11.00, 52	5.50, 34	6.41, 51	6.18, 40	3.75, 32	3.91, 24	7.92, 42	44.67
451	10.10, 89	16.70, 94	13.00, 72	0 0	0 0	0 0	0 0	39.80
476	20.58, 80	34.24, 90	57.25, 87	40.34, 89	18.25, 39	23.00, 64	16.17, 39	203.83
507	13.75, 75	21.25, 59	28.58, 62	15.33, 34	22.09, 70	9.84, 24	15.50, 33	126.34
MEAN	74	69	69	41	35	28	29	
IGE/Non-WDRSD								
372	16.84, 21	14.25, 12	16.99, 13	18.50, 14	19.19, 14	23.27, 21	33.93, 20	142.97
410	19.50, 20	3.83, 04	0 0	0 0	0 0	0 0	0 0	23.33
493	50.88, 80	75.99, 88	87.67, 67	86.34, 85	80.51, 78	84.36, 86	111.25, 84	577.00
MEAN	14	35	27	33	31	36	35	
Non-IGE/WDRSD								
900	4.26, 49	7.67, 45	29.16, 66	25.50, 82	2.00, 20	24.42, 72	23.06, 70	116.07
902	31.00, 64	38.50, 92	39.50, 66	55.00, 74	26.00, 94	69.25, 83	54.67, 65	313.92
901	45.42, 61	29.17, 34	92.98, 76	57.65, 55	62.40, 54	29.83, 38	47.84, 38	365.29
903	4.58, 33	8.25, 46	18.17, 57	-	6.84, 37	8.84, 36	10.00, 50	56.68
MEAN	52	54	66	70	51	57	56	

Table 8

Average Number of Hours and Percentage of Observed Time for

Three Materials Categories by Period for Reading Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Paper/Pencil								
IGE/WDRSD								
466	-	3.19, 60	5.40, 56	3.30, 55	-	6.21, 52	5.37, 49	23.47
451	8.10, 84	7.83, 70	-	2.27, 71	8.50, 77	9.96, 90	6.74, 62	43.40
476	8.56, 76	3.05, 31	3.23, 27	6.76, 69	2.62, 32	3.34, 51	3.63, 31	31.13
507	11.65, 78	3.44, 76	11.73, 79	7.14, 67	6.40, 92	4.99, 74	3.52, 96	48.87
MEAN	79	59	54	66	67	67	60	
IGE/Non-WDRSD								
372	15.62, 68	12.76, 60	20.84, 62	15.18, 61	13.97, 60	10.74, 65	11.59, 48	100.70
410	6.37, 60	2.06, 18	9.73, 73	7.35, 82	5.58, 76	5.67, 48	16.87, 57	53.66
493	6.03, 66	8.12, 49	7.72, 48	4.21, 51	6.07, 42	6.02, 55	.15, 01	38.32
MEAN	65	42	61	65	59	56	35	
Non-IGE/WDRSD								
900	7.14, 81	4.43, 45	-	7.30, 82	2.89, 25	3.31, 61	6.93, 78	32.00
902	3.14, 66	1.05, 27	4.22, 49	.89, 15	1.67, 30	3.87, 45	6.61, 74	21.45
901	5.25, 39	3.52, 34	7.94, 39	5.28, 57	12.66, 66	3.20, 40	6.24, 56	44.09
903	3.64, 73	4.00, 56	5.18, 72	-	5.89, 62	3.39, 45	7.45, 76	29.55
MEAN	65	40	53	51	46	48	71	

Table 8 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
	Manipulatives/ Games							
IGE/WDRSD								
466	-	0 0	0 0	0 0	-	1.52, 12	0 0	1.52
451	0 0	1.23, 11	-	0 0	0 0	.05, 0+	0 0	1.28
476	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
507	4.23, 28	.33, 05	.08, 01	0 0	0 0	0 0	0 0	4.64
MEAN	09	04	0+	0	0	03	0	
IGE/Non-WDRSD								
372	0 0	0 0	0 0	0 0	0 0	0 0	.06, 0+	.06
410	0 0	.47, 04	0 0	0 0	0 0	0 0	0 0	.47
493	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
MEAN	0	01	0	0	0	0	0+	
Non-IGE/WDRSD								
900	.11, 01	0 0	-	3.01, 34	0 0	0 0	0 0	3.12
902	0 0	1.58, 40	.10, 01	1.84, 32	0 0	.62, 07	0 0	4.14
901	1.53, 11	0 0	0 0	0 0	0 0	0 0	0 0	1.53
903	0 0	2.76, 39	0 0	-	.24, 03	0 0	0 0	3.00
MEAN	03	20	0+	22	0+	02	0	

Table 8 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Printed Materials								
IGE/WDRSD								
466	-	0 0	0 0	.42, 07	-	0 0	.35, 03	.77
451	.33, 03	1.13, 10	-	0 0	1.37, 12	2.34, 21	2.33, 21	7.50
476	3.91, 35	1.02, 10	3.09, 26	3.73, 38	5.98, 72	2.00, 30	5.13, 44	24.86
507	6.93, 46	3.44, 53	9.79, 66	3.92, 37	4.13, 59	1.72, 25	3.73, 96	33.66
MEAN	28	18	31	20	48	19	41	
IGE/Non-WDRSD								
372	10.72, 47	11.50, 54	19.89, 59	15.03, 60	13.48, 58	7.93, 48	11.27, 47	89.82
410	7.07, 67	10.80, 94	7.09, 53	3.83, 43	6.00, 82	8.35, 71	15.93,53	59.07
493	2.15, 24	2.32, 14	.25, 02	.35, 04	4.50, 31	2.88, 26	5.77, 57	18.22
MEAN	46	54	38	36	57	48	52	
Non-IGE/WDRSD								
900	1.42, 17	2.23, 23	-	.78, 09	1.00, 09	0 0	.28, 03	5.71
902	.75, 16	.07, 02	.22, 03	0 0	.94, 17	0 0	3.72, 42	5.70
901	5.36, 50	5.81, 55	8.30, 41	2.72, 30	9.97, 52	2.43, 30	3.06, 28	37.65
903	.15, 03	.04, 01	0 0	-	0 0	1.83, 24	2.44, 25	4.46
MEAN	19	20	15	13	20	14	24	

Table 9

Average Number of Hours and Percentage of Allocated Time for

Four Materials Categories by Period for Reading Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
				WDRSD				
IGE/WDRSD								
466	18.00, 84	10.50, 66	5.09, 40	8.66, 56	5.00, 43	10.92, 66	7.41, 39	65.58
451	2.50, 22	16.70, 93	13.00, 72	0 0	13.50, 60	9.00, 38	22.50, 96	77.20
476	23.58, 92	36.49, 96	53.25, 91	24.67, 55	22.75, 48	12.75, 35	9.50, 23	182.99
507	5.42, 30	20.83, 58	36.66, 80	31.66, 71	30.01, 96	15.25, 37	37.07, 78	176.90
MEAN	57	78	58	46	62	44	59	
IGE/Non-WDRSD								
372	0 0	0 0	0 0	0 0	0 0	.67, 01	0 0	.67
410	0 0	0 0	0 0	0 0	0 0	0 0	.50, 0+	.50
493	0 0	3.00, 03	0 0	0 0	3.00, 03	3.00, 03	2.00, 01	11.00
MEAN	0	01	0	0	01	01	0+	
Non-IGE/WDRSD								
900	4.26, 49	6.99, 41	32.25, 73	22.00, 71	0 0	12.83, 38	5.84, 18	84.17
902	39.00, 81	38.50, 92	44.00, 74	68.00, 92	0 0	67.00, 80	57.92, 69	314.42
901	10.01, 13	18.51, 21	27.24, 22	46.67, 45	38.01, 33	20.65, 26	55.58, 44	216.67
903	7.00, 51	10.67, 59	20.67, 64	-	14.84, 80	19.50, 79	14.00, 70	86.68
MEAN	49	53	58	69	28	56	50	

Table 9 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Other Text or Curriculum Series								
IGE/WDRSD								
466	0 0	2.00, 12	.50, 04	0 0	0 0	.33, 02	0 0	2.83
451	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
476	0 0	4.50, 12	10.00, 17	21.42, 47	32.75, 69	17.28, 48	0 0	85.92
507	3.75, 20	.83, 02	6.25, 14	6.67, 15	0 0	3.33, 08	0 0	20.83
MEAN	05	07	06	16	17	15	0	
IGE/Non-WDRSD								
372	52.07, 64	79.19, 66	77.73, 58	71.56, 54	63.79, 46	47.00, 41	72.28, 44	463.62
410	5.50, 08	42.50, 49	64.15, 49	21.50, 21	25.17, 24	53.50, 54	43.91, 33	256.23
493	41.13, 65	69.74, 66	89.76, 66	71.67, 63	58.60, 51	60.01, 57	63.92, 43	454.83
MEAN	46	60	58	46	40	51	40	
Non-IGE/WDRSD								
900	0 0	0 0	6.25, 72	0 0	0 0	1.50, 04	0 0	7.75
902	3.00, 06	0 0	0 0	0 0	0 0	1.75, 02	0 0	4.75
901	39.17, 52	26.67, 31	73.41, 60	37.50, 36	63.90, 55	29.50, 38	52.66, 41	322.81
903	1.50, 11	0 0	.33, 01	-	.58, 03	0 0	.67, 03	3.08
MEAN	17	08	33	12	15	11	11	

Table 9 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Teacher-made Materials								
IGE/WDRSD								
466	0 0	.33, 02	.92, 07	0 0	1.50, 13	1.00, 06	3.34, 18	7.09
451	7.60, 67	4.50, 25	4.00, 22	4.50, 54	8.00, 36	0 0	9.00, 38	37.60
476	0 0	3.75, 10	0 0	9.67, 21	6.00, 13	13.50, 37	8.25, 20	41.17
507	6.25, 34	8.75, 24	0 0	4.17, 09	0 0	20.00, 49	1.33, 03	40.50
MEAN	25	15	07	21	16	23	20	
IGE/Non-WDRSD								
372	.17, 0+	0 0	.66, 0+	.25, 0+	2.75, 02	0 0	0 0	3.83
410	0 0	16.00, 19	56.49, 43	9.00, 09	13.92, 13	0 0	0 0	95.41
493	3.00, 05	8.51, 08	2.50, 02	2.33, 02	4.25, 04	4.00, 04	0 0	24.59
MEAN	02	09	15	04	06	01	0	
Non-IGE/WDRSD								
900	3.17, 36	6.33, 37	3.33, 08	12.50, 40	1.50, 15	13.91, 41	17.22, 53	57.96
902	5.50, 11	.50, 01	20.00, 34	7.00, 09	0 0	10.50, 13	8.00, 09	51.50
901	16.24, 22	9.50, 11	2.33, 02	2.83, 03	2.33, 02	0 0	.83, 01	34.06
903	2.08, 15	1.67, 09	8.50, 26	-	1.16, 06	1.50, 06	.17, 01	15.08
MEAN	21	15	18	17	06	15	16	

Table 9 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Other Materials								
IGE/WDRSD								
466	0 0	1.67, 10	4.50, 35	3.50, 23	3.00, 26	2.25, 14	5.42, 29	20.34
451	0 0	0 0	0 0	0 0	9.00, 40	9.00, 38	0 0	18.00
476	0 0	0 0	0 0	.75, 02	13.25, 28	21.75, 60	29.92, 73	65.67
507	.83, 05	12.17, 34	1.67, 04	5.42, 12	0 0	0 0	13.33, 28	33.42
MEAN	01	11	10	09	24	28	33	
IGE/Non-WDRSD								
372	29.35, 36	39.90, 33	52.99, 40	57.84, 44	72.15, 52	62.45, 55	87.52, 53	402.20
410	11.20, 16	25.50, 30	84.57, 65	84.25, 83	75.50, 73	44.49, 45	82.00, 62	407.51
493	22.08, 35	25.25, 24	40.25, 29	36.00, 32	45.99, 40	37.00, 32	83.33, 79	289.90
MEAN	29	29	44	53	55	44	65	
Non-IGE/WDRSD								
900	0 0	5.42, 32	0 0	1.50, 05	7.67, 76	4.00, 12	7.50, 23	26.09
902	4.50, 09	2.50, 06	5.50, 09	1.50, 02	2.00, 07	13.75, 16	21.08, 25	50.83
901	4.25, 06	6.33, 07	20.33, 17	3.00, 03	14.83, 13	3.83, 05	17.17, 14	69.74
903	0 0	0 0	0 0	-	0 0	.83, 03	5.09, 25	5.92
MEAN	04	11	07	03	24	09	22	

Table 10

Average Number of Hours and Percentage of Observed Time for

Two Interactions Categories by Period for Reading Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Student to Teacher								
IGE/WDRSD								
466	-	.24, 05	.66, 07	.12, 02	-	.78, 07	.48, 04	2.28
451	.22, 02	.42, 03	-	.05, 02	.56, 05	.79, 07	.95, 09	2.99
476	.12, 01	.45, 05	.24, 02	.42, 04	.27, 03	.36, 05	2.71, 23	4.57
507	1.25, 08	.53, 08	1.07, 07	1.17, 11	.39, 06	.57, 08	.21, 05	5.19
MEAN	04	05	05	05	05	07	10	
IGE/Non-WDRSD								
372	.56, 02	.15, 01	.72, 02	.58, 02	.16, 01	.35, 02	.06, 01	2.58
410	2.88, 27	3.97, 35	1.82, 14	.57, 06	1.16, 16	1.89, 16	7.31, 25	19.60
493	1.20, 13	1.93, 12	1.99, 16	.95, 11	1.74, 12	.56, 05	0 0	8.37
MEAN	14	16	10	06	10	08	09	
Non-IGE/WDRSD								
900	.50, 06	.61, 06	-	.46, 05	.82, 07	.10, 02	.50, 06	2.99
902	.31, 07	.35, 09	1.07, 12	.28, 05	.56, 10	1.58, 18	1.18, 13	5.33
901	.95, 07	.90, 09	1.88, 09	.38, 04	1.52, 08	.88, 11	.55, 05	7.06
903	.50, 10	.99, 14	1.35, 19	-	.76, 08	1.01, 13	1.67, 17	6.28
MEAN	08	10	13	05	08	11	10	

Table 10 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Teacher to Student								
IGE/WDRSD								
466	-	2.21, 42	.73, 08	.47, 08	-	.98, 08	2.65, 24	7.04
451	2.16, 22	2.70, 24	-	.10, 03	2.31, 21	2.95, 27	2.37, 22	12.59
476	4.66, 41	3.68, 37	1.14, 09	3.21, 33	.98, 12	4.45, 67	2.06, 18	20.18
507	2.91, 19	.32, 05	3.02, 20	1.88, 18	.75, 11	1.68, 24	.11, 03	10.67
MEAN	27	27	12	16	15	31	17	
IGE/Non-WDRSD								
37.	2.27, 10	1.90, 09	1.70, 05	1.60, 06	1.59, 07	1.07, 07	1.19, 05	11.31
410	1.89, 18	2.17, 19	1.95, 15	1.38, 15	1.78, 24	1.01, 09	4.80, 16	14.98
493	1.88, 21	2.73, 17	1.31, 10	.78, 09	4.75, 33	3.26, 30	.85, 08	15.56
MEAN	16	15	10	10	21	15	10	
Non-IGE/WDRSD								
900	1.69, 20	2.79, 28	-	3.29, 37	2.44, 21	.82, 15	.84, 09	11.87
902	.82, 17	.80, 20	1.72, 20	.87, 15	1.32, 24	3.76, 44	2.34, 26	11.63
901	2.47, 18	2.26,22	3.86, 19	1.61, 18	3.06, 16	.59, 07	.96, 09	14.81
903	1.17, 23	1.23, 17	1.59, 22	-	1.88, 20	2.35, 31	2.88, 29	11.10
MEAN	20	22	20	23	20	24	18	

Table 11

Average Number of Hours and Percentage of Observed Time for

Three Grouping Categories by Period for Mathematics Skills

Grade 2

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Individual								
IGE/DMP								
440	3.03, 28	3.67, 34	3.27, 42	2.69, 30	3.23, 33	2.07, 59	4.43, 29	22.39
593	9.76, 58	13.98, 78	3.15, 58	15.51, 74	10.50, 64	3.64, 32	4.99, 43	61.53
MEAN	43	56	50	52	48	46	36	
IGE/Non-DMP								
428	3.94, 79	2.96, 59	1.48, 59	3.28, 28	5.41, 68	1.48, 23	4.49, 61	23.04
421	3.21, 28	7.96, 68	-	6.56, 63	5.66, 58	5.49, 54	3.42, 48	32.30
333	7.19, 76	10.59, 92	8.44, 77	3.76, 63	3.26, 57	7.84, 76	7.58, 82	48.66
MEAN	61	73	68	51	58	51	64	
Non-IGE/DMP								
904	2.76, 22	4.77, 38	6.09, 54	5.98, 59	8.36, 66	5.26, 81	4.94, 49	38.16
906	5.74, 40	.94, 07	6.42, 40	3.45, 24	5.19, 39	2.27, 45	3.45, 25	27.46
762	7.79, 30	7.08, 23	14.60, 45	5.53, 49	13.68, 43	3.36, 17	1.88, 08	53.92
MEAN	31	23	46	44	49	48	27	

Table 11 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Small Group								
IGE/DMP								
440	1.03, 09	2.08, 19	.70, 09	.36, 04	1.48, 15	.05, 01	.80, 05	6.50
593	2.71, 16	.29, 02	0 0	.24, 01	.36, 02	1.17, 10	2.23, 19	7.00
MEAN	12	10	04	02	08	06	10	
IGE/Non-DMP								
428	.19, 04	.13, 03	.44, 18	.06, 01	0 0	0 0	.06, 01	.88
421	4.91, 43	1.20, 10	-	.56, 05	1.05, 11	.75, 07	.83, 12	9.26
333	2.09, 22	0 0	0 0	0 0	0 0	0 0	0 0	2.09
MEAN	23	04	09	02	04	02	04	
Non-IGE/DMP								
904	2.05, 17	.06, 0+	.06, 01	.06, 01	.32, 03	.10, 02	.17, 02	2.82
906	.62, 04	3.97, 30	4.43, 28	2.69, 19	4.24, 32	.57, 11	.63, 05	17.15
762	1.66, 06	.83, 03	0 0	1.22, 11	1.10, 03	.41, 02	.53, 02	5.75
MEAN	09	11	10	10	13	05	03	

Table 11 (continued)

School Type and Number	Period (Hours, %)							
	A	B	C	D	E	F	G	Total
Large Group								
IGE/DMP								
440	5.22, 48	3.96, 37	2.70, 35	4.70, 52	3.40, 35	1.09, 31	7.80, 51	28.87
593	4.12, 24	2.45, 14	1.94, 36	4.44, 21	3.96, 24	5.03, 44	4.20, 36	26.14
MEAN	36	26	36	36	30	38	44	
IGE/Non-DMP								
428	.88, 18	1.93, 39	.53, 21	6.23, 52	1.08, 14	2.30, 36	1.11, 15	14.06
421	2.12, 19	.75, 06	-	.12, 01	.38, 04	.55, 05	2.02, 28	5.94
333	0 0	.06, 01	1.97, 18	1.75, 29	3.20, 46	1.59, 15	.21, 02	8.78
MEAN	18	15	20	27	21	19	15	
Non-IGE/DMP								
904	7.31, 59	6.51, 51	3.62, 32	2.38, 24	.86, 07	.05, 01	4.56, 46	25.28
906	7.27, 50	2.92, 22	3.96, 25	7.07, 50	2.86, 22	2.11, 42	8.94, 64	35.13
762	4.53, 17	4.25, 14	2.66, 18	1.71, 15	5.45, 17	9.75, 51	8.14, 33	36.49
MEAN	42	29	22	30	15	31	48	

Table 12

Average Number of Hours and Percentage of Allocated Time for

Three Grouping Categories by Period for Mathematics Skills

Grade 2

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Individual								
IGE/DMP								
440	14.08, 23	21.50, 35	30.91, 35	16.92,22	18.07, 28	38.33, 56	21.67, 34	161.48
593	38.83, 44	38.01, 37	44.60, 50	42.17, 40	42.43, 34	59.54, 47	56.52, 52	322.10
MEAN	34	36	43	31	31	52	43	
IGE/Non-DMP								
428	.37, 04	5.18, 08	2.43, 16	1.83, 05	5.75, 12	10.67, 23	41.24, 69	67.47
421	33.99, 61	45.82, 72	70.00, 75	56.26, 87	32.58, 55	40.81, 73	36.08, 61	318.24
333	0 0	0 0	0 0	0 0	0 0	11.50, 26	1.50, 04	13.00
MEAN	22	26	30	31	22	41	45	
Non-IGE/DMP								
904	23.00, 54	15.00, 35	20.16, 50	21,67, 58	25.50, 53	33.34 84	29.17, 63	167.84
906	35.58, 54	20.16, 32	27.00, 29	41.33, 52	34.33, 37	21.25, 37	39.17, 39	218.82
762	18.83, 44	34.08, 32	30.34, 40	24.58, 27	71.49, 49	21.00, 18	38.50, 25	238.82
MEAN	51	33	40	46	46	46	42	

Table 12 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
	Small Group / pair							
IGE/DMP								
440	5.92, 10	2.58, 04	2.67, 03	7.67, 10	6.32, 10	1.75, 03	3.00, 05	29.91
593	12.66, 14	19.34, 19	12.83, 14	33.67, 32	26.17, 21	19.75, 16	17.66, 16	142.08
MEAN	12	12	09	21	16	10	11	
IGE/Non-DMP								
428	2.58, 26	2.18, 03	.67, 05	.17, 0+	3.75, 08	1.17, 02	.33, 01	10.85
421	10.00, 18	12.66, 19	9.75, 10	8.49, 13	19.24, 32	11.75, 21	22.99, 30	94.88
333	3.40, 12	0 0	0 0	0 0	0 0	0 0	0 0	3.40
MEAN	19	07	05	04	13	08	13	
Non-IGE/DMP								
904	2.00, 05	0 0	.02, 0+	0 0	0 0	0 0	0 0	2.02
906	8.33, 13	20.70, 33	42.67, 46	13.83, 17	29.83, 32	16.50, 29	21.50, 22	153.36
762	4.25, 10	1.25, 01	0 0	0 0	0 0	0 0	11.25, 07	16.75
MEAN	09	11	15	06	11	10	10	

Table 12 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Large Group								
IGE/DMP								
440	40.16, 66	16.58, 27	40.67, 46	35.08, 45	24.15, 37	23.50, 34	39.92, 62	220.06
593	26.16, 29	41.85, 40	28.33, 32	29.34, 28	34.25, 27	45.02, 36	29.01, 26	233.96
MEAN	48	34	39	37	32	35	44	
IGE/Non-DMP								
428	7.01, 70	58.34, 88	11.64, 79	34.00, 94	37.40, 79	33.74, 72	15.59, 26	197.72
421	8.83, 16	7.33, 11	14.00, 17	0 0	7.50, 13	3.42, 06	0 0	41.08
333	25.65, 88	41.89, 95	51.66,100	38.00,100	50.50,100	33.50, 74	38.00, 94	279.20
MEAN	58	65	65	65	64	51	40	
Non-IGE/DMP								
904	17.83, 42	23.88, 55	20.08, 50	16.00, 42	21.17, 44	6.50, 16	16.84, 37	122.25
906	21.42, 33	21.46, 34	23.67, 25	24.50, 31	28.17, 31	16.25, 20	38.99, 39	174.46
762	18.58, 43	70.42, 67	46.42, 60	66.17, 73	75.42, 51	95.50, 82	102.00, 67	474.51
MEAN	39	52	45	49	42	42	48	

Table 13

Average Number of Hours and Percentage of Observed Time for Three Materials Categories by Period for Mathematics Skills

Grade 2

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Paper/Pencil								
IGE/DMP								
440	6.97, 64	8.83, 82	3.05, 40	5.69, 62	5.91, 61	2.57, 73	11.99, 78	45.01
593	6.07, 36	8.15, 46	1.82, 89	9.81, 46	2.86, 17	8.46, 74	8.21, 71	48.38
MEAN	50	64	64	54	39	74	74	
IGE/Non-DMP								
428	4.51, 90	4.74, 95	1.83, 73	7.69, 64	6.14, 78	5.38, 56	5.54, 76	34.03
421	6.78, 59	8.36, 71	-	6.44, 62	6.83, 70	5.48, 54	3.45, 49	37.34
333	6.42, 68	10.64, 92	8.39, 76	3.70, 62	5.27, 76	8.44, 82	7.79, 85	50.65
MEAN	72	86	74	63	75	64	70	
Non-IGE/DMP								
904	11.12, 90	9.73, 77	9.48, 84	5.37, 53	6.93, 55	5.31, 82	9.55, 96	57.49
906	9.75, 67	7.82, 60	12.54, 78	9.33, 66	10.72, 81	4.34, 87	11.02, 79	65.52
762	12.27, 46	11.09, 37	16.89, 52	6.83, 60	13.01, 41	8.80, 46	8.29, 33	77.18
MEAN	68	58	71	60	59	72	69	

Table 13 (continued)

School Type and Number	Period (Hours, %)							
	A	B	C	D	E	F	G	Total
	Manipulatives							
IGE/DMP								
440	1.15, 11	8.07, 75	4.55, 59	4.97, 55	3.50, 36	.06, 02	4.31, 28	26.61
593	2.54, 15	0 0	.06, 01	1.70, 08	0 0	0 0	0 0	4.30
MEAN	13	38	30	32	18	01	14	
IGE/Non-DMP								
428	.50, 10	.26, 05	.75, 30	1.64, 15	0 0	0 0	.12, 02	3.27
421	1.29, 11	1.32, 11	-	0 0	.40, 04	.05, 0+	2.53, 36	5.59
333	.11, 12	0 0	0 0	0 0	0 0	0 0	0 0	.11
MEAN	11	05	15	05	01	0+	13	
Non-IGE/DMP								
904	1.40, 11	0 0	0 0	1.83, 18	2.08, 16	0 0	0 0	5.31
906	11.98, 83	4.92, 38	12.20, 76	8.16, 57	11.16 84	4.89, 98	7.06, 50	60.37
762	6.43, 24	3.07, 10	.59, 09	2.72, 24	2.81, 09	4.60, 24	1.50, 06	21.72
MEAN	39	16	28	33	36	41	19	

Table 13 (continued)

School Type and Number	Period (Hours, %)							
	A	B	C	D	E	F	G	Total
Printed Materials								
IGE/DMP								
440	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
593	9.81, 58	12.62, 71	0 0	9.19, 44	9.95, 60	.07, 10	0 0	41.64
MEAN	29	36	0	22	30	05	0	
IGE/Non-DMP								
428	0 0	0 0	0 0	0 0	0 0	.42, 07	0 0	.42
421	0 0	0 0	-	0 0	0 0	0 0	.01, 1[illegible]	.01
333	0 0	0 0	9.33, 85	4.32, 72	5.47, 79	4.11, 40	3.72, 40	26.95
MEAN	0	0	42	24	26	16	18	
Non-IGE/DMP								
904	3.81, 31	7.99, 63	4.84, 43	0 0	2.02, 16	0 0	1.39,14	20.05
906	.44, 03	7.82, 60	0 0	.67, 05	0 0	0 0	0 0	8.93
762	0 0	0 0	0 0	.41, 04	5.92, 19	.24, 01	.06, 0+	6.63
MEAN	11	41	14	03	12	0+	05	

Table 14

Average Number of Hours and Percentage of Allocated Time for

Four Materials Categories by Period for Mathematics Skills

Grade 2

School Type and Number	Period (Hours, %)							Total
	A	B	C	D	E	F	G	
DMP								
IGE/DMP								
440	57.08, 93	48.50, 80	79.66, 90	76.42, 98	62.91, 97	60.67, 88	60.42, 94	445.66
593	68.40, 77	75.83, 73	45.67, 51	38.90, 37	65.56, 52	48.43, 39	34.21, 31	377.00
MEAN	85	77	71	68	75	64	63	
IGE/Non-DMP	(no time was allocated to DMP in the non-DMP schools)							
428								
421								
333								
MEAN								
Non-IGE/DMP								
904	31.33, 73	39.96, 93	31.99, 79	21.67, 58	26.00, 55	10.84, 27	15.67, 34	177.46
906	64.91, 99	62.34,100	87.33, 94	61.17, 77	87.33, 95	53.50, 94	79.66, 80	496.24
762	28.33, 66	70.92, 67	49.92, 65	57.17, 63	62.58, 43	91.75, 79	84.83, 56	445.50
MEAN	79	87	79	66	64	55	57	

Table 14 (continued)

School Type and Number	Period (Hours, %)													
	A		B		C		D		E		F		G	Total
Other Text or Curriculum Series														
IGE/DMP														
440	0	0	0	0	0	0	0	0	0	0	0	0	0	0
593	0	0	0	0	.67,	01	7.33,	07	12.67,	10	48.43,	39	24.00, 22	93.10
MEAN		0		0		0+		04		05		20	11	
IGE/Non-DMP														
428	7.25,	73	52.58,	79	11.41,	77	13.92,	39	21.16,	44	28.74,	61	53.07, 89	188.13
421	31.99,	57	46.99,	71	57.92,	62	25.74,	40	4.09,	07	8.00,	14	8.67, 15	183.40
333	15.25,	52	32.29,	74	38.50,	75	30.50,	80	43.75,	87	31.50,	70	27.00, 67	218.79
MEAN		61		75		71		53		46		45	57	
Non-IGE/DMP														
904	0	0	0	0	0	0	.50,	01	7.67,	16	6.50,	16	6.83, 15	21.50
906	0	0	0	0	.50,	01	0	0	0	0	0	0	0 0	.50
762	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0
MEAN		0		0		0+		0+		05		05	05	

Table 14 (continued)

School Type and Number	Period (Hours, %)							
	A	B	C	D	E	F	G	Total
Teacher-Made Materials								
IGE/DMP								
440	.50, 01	3.00, 05	2.84, 03	1.00, 01	1.91, 03	7.91, 12	4.17, 06	21.33
593	17.50, 20	25.43, 24	45.75, 51	62.33, 59	54.97, 52	55.79, 44	69.00, 63	340.77
MEAN	11	15	27	30	28	28	35	
IGE/Non-DMP								
428	.17, 02	7.60, 11	1.78, 12	11.00, 31	19.41, 41	3.08, 07	3.75, 06	46.79
421	18.16, 33	12.16, 18	33.84, 36	21.58, 33	27.00, 46	13.30, 24	15.41, 26	141.45
333	8.70, 30	10.60, 24	3.50, 07	0 0	1.50, 03	9.00, 20	0 0	33.30
MEAN	22	14	16	21	30	17	11	
Non-IGE/DMP								
904	11.50, 27	3.17, 07	4.00, 10	10.50, 28	10.67, 22	18.50, 46	21.99, 48	80.33
906	.42, 01	0 0	5.50, 06	6.00, 08	5.00, 05	3.50, 06	15.00, 05	35.42
762	14.83, 34	31.33, 30	23.67, 31	24.58, 27	45.74, 31	24.75, 21	66.67, 44	231.57
MEAN	21	12	16	21	19	24	36	

Table 14 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Other Materials								
IGE/DMP								
440	2.50, 04	0 0	7.83, 09	.25, 0+	.08, 0+	0 0	0 0	10.66
593	5.67, 06	15.51, 15	11.99, 13	15.41, 15	20.91, 17	24.84, 20	20.91, 19	114.84
MEAN	05	08	11	08	09	10	10	
IGE/Non-DMP								
428	.91, 09	3.66, 06	1.32, 09	4.08, 11	4.51, 09	18.42, 39	2.83, 05	35.73
421	12.09, 22	12.66, 19	14.42, 25	23.83, 37	29.60, 50	35.08, 63	36.66, 62	164.34
333	5.10, 18	1.00, 02	8.00, 15	4.50, 12	5.25, 10	4.50, 10	9.50, 23	37.85
MEAN	16	09	13	20	23	37	30	
Non-IGE/DMP								
904	0 0	0 0	4.27, 11	5.00, 13	3.00, 06	4.00, 10	1.50, 03	17.77
906	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
762	0 0	3.50, 03	3.17, 04	9.00, 10	49.25, 34	0 0	.25, 0+	65.17
MEAN	0	01	05	08	13	03	01	

Table 15

Average Number of Hours and Percentage of Observed Time for

Three Grouping Categories by Period for Mathematics Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Individual								
IGE/DMP								
440	10.75, 62	11.05, 65	3.15, 59	10.39, 60	9.25, 52	3.49, 63	17.44, 64	65.52
593	6.72, 56	6.59, 53	0 0	7.20, 44	1.64, 10	2.21, 18	1.17, 15	25.53
MEAN	59	59	20	52	31	40	40	
IGE/Non-DMP								
428	7.72, 53	4.80, 48	2.10, 42	7.04, 49	4.35, 31	4.84, 50	7.26, 49	38.11
333	4.50,100	15.56, 92	10.17, 85	7.80, 99	8.12, 87	3.80, 80	12.94, 95	62.89
MEAN	76	70	64	74	59	65	72	
Non-IGE/DMP								
905	9.35, 76	4.47, 35	7.79, 68	9.78, 86	9.67, 88	5.50, 61	7.30, 63	53.86
906	10.46, 70	11.36, 74	5.91, 70	11.88, 67	12.38, 73	5.27, 48	13.15, 73	70.41
MEAN	73	54	69	76	80	54	68	

Table 15 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Small Group								
IGE/DMP								
440	1.44, 08	.66, 04	.06, 01	.72, 04	.25, 01	.37, 07	1.01, 04	4.51
593	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
MEAN	04	02	0+	02	0+	04	02	
IGE/Non-DMP								
428	0 0	.44, 04	0 0	.18, 01	0 0	0 0	1.74, 12	2.36
333	0 0	0 0	0 0	0 0	0 0	0 0	.65, 05	.65
MEAN	0	02	0	0+	0	0	08	
Non-IGE/DMP								
905	.34, 03	2.59, 21	.11, 01	.22, 02	.06, 01	2.61, 29	.69, 06	6.62
906	2.73, 62	1.95, 18	1.44, 13	3.96, 17	2.21, 22	1.01, 13	1.79, 09	15.09
MEAN	32	20	07	10	12	21	08	

Table 15 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Large Group								
IGE/DMP								
440	2.33, 13	4.09, 24	2.92, 37	5.50, 32	6.59, 37	1.59, 29	6.80, 25	29.82
593	3.66, 31	3.41, 28	3.63, 96	7.08, 44	11.15, 70	7.16, 59	4.85, 64	40.94
MEAN	22	26	66	38	54	44	44	
IGE/Non-DMP								
428	6.65, 49	4.61, 47	1.63, 33	4.61, 32	8.91, 64	4.50, 47	3.79, 25	34.80
333	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
MEAN	24	24	16	16	32	24	12	
Non-IGE/DMP								
905	1.06, 09	1.47, 12	1.95, 17	.11, 01	1.00, 09	0 0	1.44, 13	7.03
906	1.39, 09	1.00, 06	.08, 01	.65, 04	.84, 05	2.75, 25	1.28, 07	7.99
MEAN	09	09	09	02	07	12	10	

Table 16

Average Number of Hours and Percentage of Allocated Time for

Three Grouping Categories by Period for Mathematics Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
			Individual					
IGE/DMP								
440	55.15, 68	70.63, 75	71.31, 66	65.97, 55	63.12, 53	61.18, 53	70.05, 64	457.41
593	33.50, 50	47.16, 53	19.67, 24	32.58, 44	37.00, 42	29.17, 39	35.08, 45	234.16
MEAN	59	64	45	50	48	46	55	
IGE/Non-DMP								
428	22.83, 40	38.83, 44	8.75, 47	29.36, 50	50.42, 55	37.10, 52	65.17, 61	252.46
333	24.09, 28	79.58, 93	83.16, 98	66.00, 96	93.26, 98	64.67,100	87.83 100	498.59
MEAN	34	69	73	73	77	76	81	
Non-IGE/DMP								
905	48.50, 92	38.84, 76	61.22, 97	52.83, 97	81.42,100	88.09, 96	72.42, 97	443.32
906	72.97, 91	95.76, 96	104.66, 89	91.08, 89	91.16, 89	42.91, 70	98.34, 84	596.48
MEAN	92	86	93	93	95	83	91	

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Table 16 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Small Group								
IGE/DMP								
440	1.42, 02	2.67, 03	5.50, 05	8.61, 07	5.67, 05	1.75, 02	4.50, 04	30.12
593	0 0	4.67, 05	0 0	1.75, 02	0 0	.58, 01	.33, 0+	7.33
MEAN	01	04	02	04	02	02	02	
IGE/Non-DMP								
428	1.66, 03	3.51, 04	.58, 03	3.34, 06	1.25, 01	1.84, 03	4.52, 04	16.70
333	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
MEAN	02	02	02	03	0+	02	02	
Non-IGE/DMP								
905	.25, 0+	7.50, 15	.75, 01	1.66, 03	0 0	0 0	0 0	10.16
906	0 0	.67, 01	0 0	0 0	.50, 0+	0 0	0 0	1.17
MEAN	0+	08	0+	02	0+	0	0	

Table 16 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Large Group								
IGE/DMP								
440	23.67, 29	21.25, 22	29.18, 27	45.26, 38	48.15, 40	49.41, 43	35.41, 32	252.83
593	32.42, 49	37.92, 42	62.42, 76	39.91, 54	51.00, 58	44.92, 60	39,25, 50	307.84
MEAN	39	32	52	46	49	52	41	
IGE/Non-DMP								
428	31.19, 55	45.09, 51	9.16, 50	26.52, 45	40.67, 44	30.94, 43	37.45, 35	221.02
333	0 0	4.17, 05	1.67, 02	2.50, 04	0 0	0 0	0 0	8.34
MEAN	28	28	26	25	22	22	18	
Non-IGE/DMP								
905	4.00, 08	3.00, 06	1.35, 02	0 0	0 0	1.50, 02	2.50, 03	12.35
906	7.12, 09	3.09, 03	10.49, 09	11.00, 11	11.25, 11	18.43, 30	17.34, 15	78.72
MEAN	09	05	06	06	06	16	09	

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Table 17

Average Number of Hours and Percentage of Observed Time for

Three Materials Categories by Period for Mathematics Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Manipulatives								
IGE/DMP								
440	1.62, 09	1.05, 06	0 0	.66, 04	1.68, 09	.20, 04	4.52, 07	9.73
593	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
MEAN	04	03	0	02	04	02	08	
IGE/Non-DMP								
428	0 0	.38, 04	0 0	.40, 03	0 0	0 0	1.87, 13	2.65
333	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0
MEAN	0	02	0	02	0	0	06	
Non-IGE/DMP								
905	.34, 03	.87, 07	0 0	0 0	0 0	0 0	.40, 03	1.61
906	.41, 03	1.11, 07	1.67, 20	6.01, 34	.17, 01	.90, 08	1.21, 07	11.48
MEAN	03	07	10	07	0+	04	05	

Table 17 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Paper and Pencil								
IGE/DMP								
440	11.96, 69	13.88, 83	5.74, 72	14.51, 83	13.55, 76	4.40, 80	24.33, 89	88.37
593	9.37, 78	7.38, 60	3.63, 96	11.86, 73	7.24, 45	9.15, 76	4.86, 64	53.49
MEAN	74	72	84	78	60	78	76	
IGE/Non-DMP								
428	14.31, 97	9.46, 96	3.62, 74	10.46, 72	11.65, 84	7.02, 72	10.92, 73	67.44
333	4.42, 98	15.56, 92	10.17, 85	6.8[illegible], 86	8.12, 87	3.69, 77	13.37, 98	62.16
MEAN	98	94	80	79	86	74	86	
Non-IGE/DMP								
905	9.66, 79	7.00, 56	8.80, 77	10.02, 88	9.15, 83	7.10, 79	7.75, 67	59.48
906	13.73, 92	13.24, 85	7.35, 87	16.16, 91	14.95, 88	8.86, 81	15.14, 84	89.43
MEAN	86	70	82	90	86	80	76	

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Table 17 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Printed Materials								
IGE/DMP								
440	1.10, 06	2.80, 17	2.82, 35	1.12, 06	0 0	1.55, 28	0 0	9.39
593	3.20, 27	9.88, 80	3.63, 96	9.50, 58	7.43, 46	1.84, 15	4.87, 64	40.35
MEAN	16	44	66	32	23	22	32	
IGE/Non-DMP								
428	8.65, 60	7.93, 80	1.40, 29	6.88, 48	2.64, 19	2.69, 28	7.07, 47	37.26
333	0 0	0 0	0 0	5.21, 66	6.37, 68	1.33, 28	3.00, 22	15.91
MEAN	30	40	14	57	44	28	34	
Non-IGE/DMP								
905	8.57, 70	4.42, 35	5.81, 51	6.86, 60	5.57, 51	6.50, 72	7.47, 65	45.20
906	10.35, 69	12.19, 79	0 0	7.09, 40	7.78, 46	6.91, 63	7.28, 40	51.60
MEAN	70	57	26	50	48	68	52	

Table 18

Average Number of Hours and Percentage of Allocated Time for

Four Materials Categories by Period for Mathematics Skills

Grade 5

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
DMP								
IGE/DMP								
440	58.74, 72	67.75, 72	53.09, 49	87.28, 73	89.20, 74	90.27, 78	90.17, 82	536.50
593	41.41, 62	30.00, 33	33.67, 41	38.76, 52	54.75, 62	57.34, 77	46.59, 59	302.52
MEAN	67	53	45	63	68	78	71	
IGE/Non-DMP								
428	No use of DMP was recorded in non-DMP schools							
333								
MEAN								
Non-IGE/DMP								
905	8.92, 17	0 0	0 0	0 0	24.50, 30	15.00, 16	0 0	48.42
906	71.25, 89	91.42, 92	70.42, 60	82.00, 80	86.42, 84	54.24, 89	0 0	455.75
MEAN	53	46	30	40	57	53	0	

Table 18 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Other Text or Curriculum Series								
IGE/DMP								
440	.33, 0+	1.25, 01	1.17, 01	1.67, 01	12.24, 10	1.25, 01	5.96, 05	23.87
593	0 0	0 0	0 0	0 0	0 0	2.00, 03	0 0	2.00
MEAN	0	0+	0+	0+	05	02	02	
IGE/Non-DMP								
428	36.85, 65	75.48, 86	13.58, 73	50.98, 86	70.57, 76	42.27, 59	88.81, 83	378,54
333	15.00, 18	52.57, 62	77.87, 92	54.08, 79	89.42, 94	57.33, 89	84.49, 96	430.76
MEAN	42	74	83	83	85	74	90	
Non-IGE/DMP								
905	36.58, 69	38.09, 75	38.58, 61	53.51, 98	55.42, 07	75.59, 82	74.92,100	372. 69
906	3.25, 04	3.00, 03	2.33, 02	6.84, 07	10.75,10	1.50, 02	0 0	27.67
MEAN	37	39	32	53	09	42	50	

Table 18 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Teacher-Made Materials								
IGE/DMP								
440	15.66, 19	16.46, 17	31.02, 29	31.21, 26	19.16, 16	23.16, 20	13.50, 12	150.17
593	11.00, 17	47.67, 53	42.00, 51	26.16, 55	33.25, 38	14.33, 19	31.83, 41	206.24
MEAN	18	35	40	41	27	20	27	
IGE/Non-DMP								
428	6.58, 12	2.93, 03	.33, 02	2.92, 05	13.92, 15	3.93, 34	11.67, 11	42.27
333	24.09, 28	85.17,100	84.83,100	67.83, 99	94.92,100	64.67,100	87.83,100	509.34
MEAN	20	52	51	52	58	67	56	
Non-IGE/DMP								
905	5.00, 09	6.17, 12	4.83, 08	0 0	6.50, 08	1.50, 02	0 0	24.00
906	2.33, 03	0 0	28.75, 25	4.59, 04	5.42, 05	4.33, 07	0 0	45.42
MEAN	06	06	17	02	06	04	0	

Table 18 (continued)

School Type and Number	Period (Hours, %) A	B	C	D	E	F	G	Total
Other Materials								
IGE/DMP								
440	6.50, 08	9.24, 10	21.89, 20	0 0	1.50, 01	1.00, 01	.33, 0+	25.42
593	14.17, 21	7.50, 08	5.75, 07	9.33, 13	0 0	1.00, 01	0 0	37.75
MEAN	15	09	14	06	0+	01	0+	
IGE/Non-DMP								
428	29.94, 53	12.66, 14	4.91, 41	7.73, 13	19.61, 21	26.42, 37	14.92, 14	116.19
333	0 0	0 0	0 0	1.34, 02	0 0	0 0	0 0	1.34
MEAN	27	07	20	08	10	19	07	
Non-IGE/DMP								
905	6.25, 12	14.17, 28	19.91, 31	1.00, 02	0 0	0 0	0 0	41.33
906	.50, 01	4.08, 04	13.33, 11	8.33, 08	0 0	1.17, 02	5.33, 05	32.74
MEAN	07	16	21	05	0	01	02	

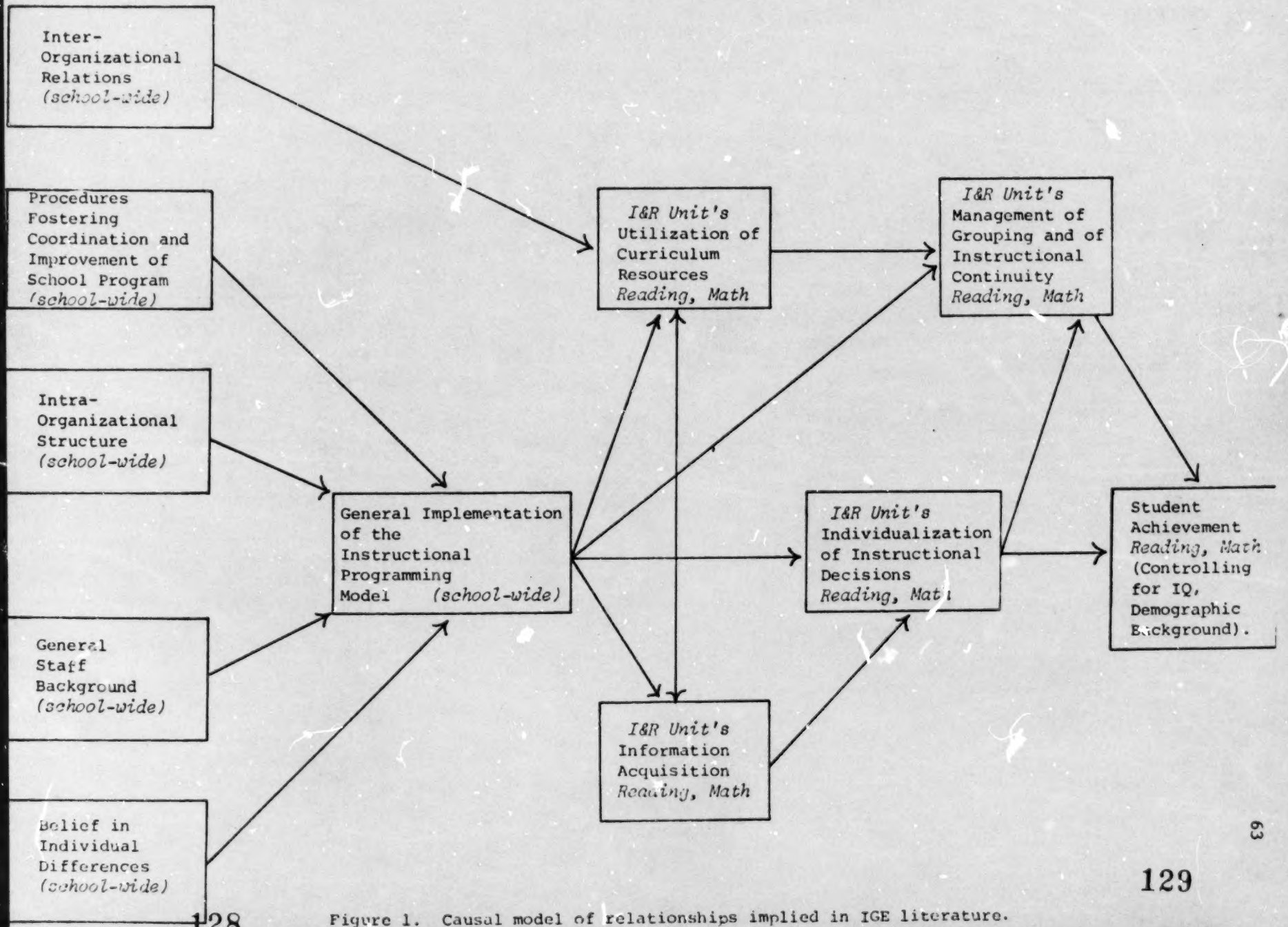
Inter-Organizational Relations (school-wide)
Procedures Fostering Coordination and Improvement of School Program (school-wide)
Intra-Organizational Structure (school-wide)
General Staff Background (school-wide)
Belief in Individual Differences (school-wide)
General Implementation of the Instructional Programming Model (school-wide)
I&R Unit's Utilization of Curriculum Resources Reading, Math
I&R Unit's Information Acquisition Reading, Math
I&R Unit's Management of Grouping and of Instructional Continuity Reading, Math
I&R Unit's Individualization of Instructional Decisions Reading, Math
Student Achievement Reading, Math (Controlling for IQ, Demographic Background).

Figure 1. Causal model of relationships implied in IGE literature.

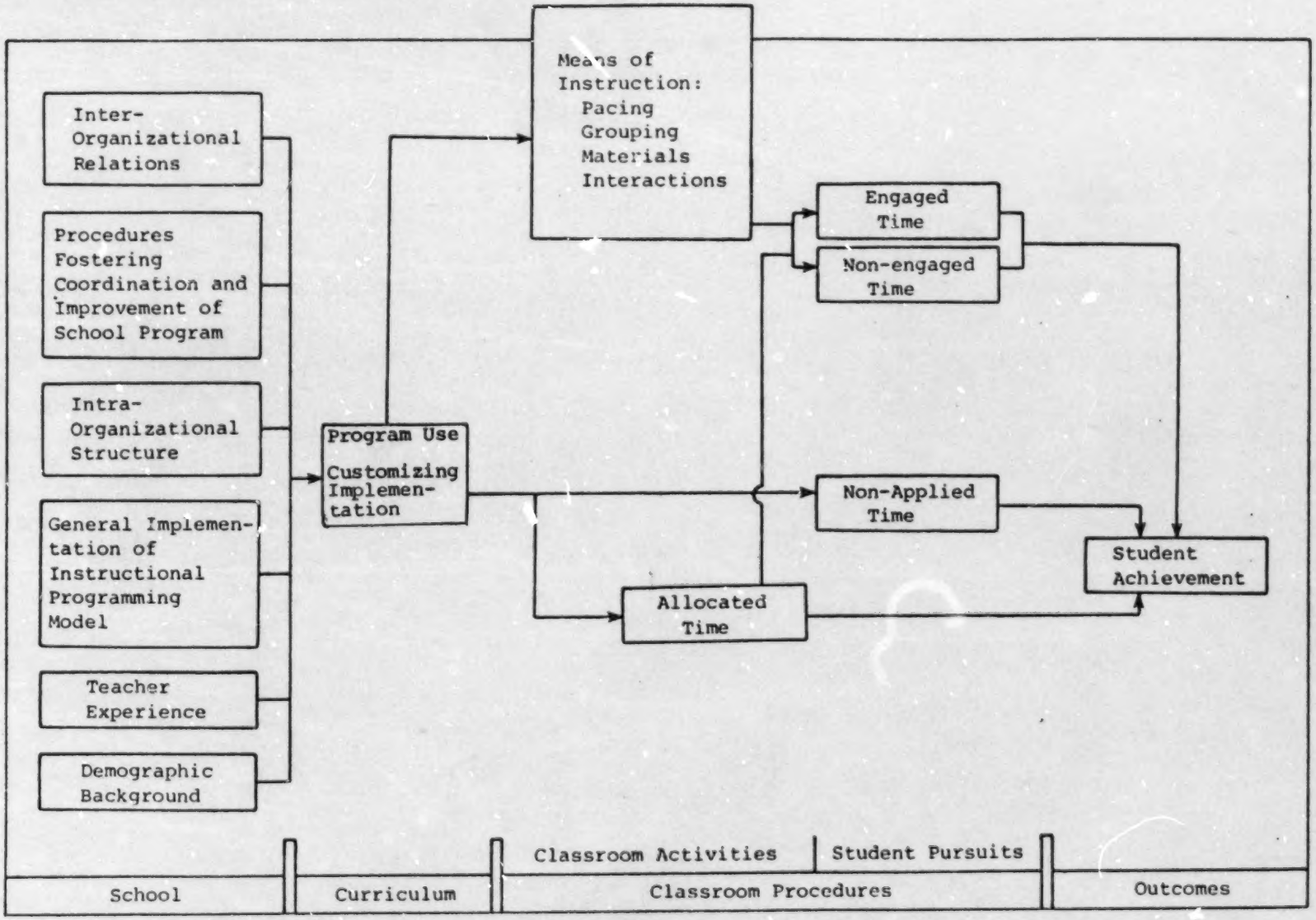

Figure 2. Phase IV model of anticipated relationships between variables.

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